

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
3 March 2005 (03.03.2005)

PCT

(10) International Publication Number
WO 2005/018809 A1

(51) International Patent Classification⁷: **B01J 37/02**,
23/44, 23/60, 23/652, 27/02, 21/08, C07C 51/25, 53/08

SHOWA DENKO K.K., 2, Oaza Nakanosu, Oita-shi, Oita
8700189 (JP).

(21) International Application Number:
PCT/JP2004/010584

(74) Agents: AOKI, Atsushi et al.; A. AOKI, ISHIDA & AS-
SOCIATES, Toranomon 37 Mori Bldg., 5-1, Toranomon
3-chome, Minato-ku, Tokyo, 1058423 (JP).

(22) International Filing Date: 16 July 2004 (16.07.2004)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
2003-208665 25 August 2003 (25.08.2003) JP
60/499,073 2 September 2003 (02.09.2003) US

(81) Designated States (*unless otherwise indicated, for every
kind of national protection available*): AE, AG, AL, AM,
AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN,
CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI,
GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, KE, KG,
KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG,
MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH,
PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN,
TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(71) Applicant (*for all designated States except US*): SHOWA
DENKO K.K. [JP/JP]; 13-9, Shiba Daimon 1-chome, Mi-
nato-ku, Tokyo, 1058518 (JP).

(72) Inventors; and

(75) Inventors/Applicants (*for US only*): OBANA, Yoshi-
aki [JP/JP]; 2-202, SUNLIFE CHOJA, 2-13-6, Choja,
Kooriyama-shi, Fukushima 9638017 (JP). SAIHATA,
Melko [JP/JP]; c/o OITA PLANT, SHOWA DENKO
K.K., 2, Oaza Nakanosu, Oita-shi, Oita 8700189 (JP).
SATO, Seiji [JP/JP]; c/o OITA PLANT, SHOWA DENKO
K.K., 2, Oaza Nakanosu, Oita-shi, Oita 8700189 (JP).
YAMADA, Kenji [JP/JP]; c/o OITA PLANT, SHOWA
DENKO K.K., 2, Oaza Nakanosu, Oita-shi, Oita 8700189
(JP). NAKAJO, Tetsuo [JP/JP]; c/o OITA PLANT,

(84) Designated States (*unless otherwise indicated, for every
kind of regional protection available*): ARIPO (BW, GH,
GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM,
ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM),
European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI,
FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI,
SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ,
GW, ML, MR, NE, SN, TD, TG).

Published:

— with international search report

*For two-letter codes and other abbreviations, refer to the "Guid-
ance Notes on Codes and Abbreviations" appearing at the begin-
ning of each regular issue of the PCT Gazette.*

(54) Title: PROCESS FOR PRODUCING CATALYST FOR PRODUCTION OF ACETIC ACID, CATALYST FOR PRODUCTION OF ACETIC ACID OBTAINED BY THE PRODUCTION PROCESS AND PROCESS FOR PRODUCING ACETIC ACID USING THE CATALYST

(57) Abstract: A process for producing a catalyst. for the production of acetic acid, used in a process for producing acetic acid from ethylene and oxygen and comprising a support having supported thereon palladium and at least one compound selected from the group consisting of heteropolyacids and salts thereof, where a catalyst capable of ensuring production of acetic acid with higher activity and less reduction in the performance accompanying changes in aging can be obtained, wherein palladium is loaded in parts and through at least two steps.

WO 2005/018809 A1